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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,531	02/22/2002	Lloyd Wass	1567-P	1059

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John M. Vasuta
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EXAMINER

RIVELL, JOHN A

ART UNIT PAPER NUMBER

3753

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,531

Applicant(s)

WASS ET AL.

Examiner

John Rivell

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/22/04 (amendment).
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) 15-18 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's arguments with respect to claims 1-14, filed November 22, 2004 have been considered but are moot in view of the new ground(s) of rejection.

Claims 15-18 have been added. Thus claims 1-18 remain pending.

The drawings were received on November 22, 2004. These drawings are approved. However, a corrected copy of figures 20 and 22 are missing. Accordingly, the Draftspersons' review, attached to the first Office action, remains in effect for figures 20 and 22. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14, drawn to a bi-directional check valve inflating and deflating an inflatable object, classified in class 137, subclass 224.
- II. Claims 15-18, drawn to a seal element used on a bi-directional valve device, classified in class 251, subclass 359.

The inventions are distinct, each from the other because of the following reasons:

Inventions of Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the

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combination as claimed in claim 1 for example does not require the particulars of the subcombination seal element as claimed in claim 15 for example for patentability. The subcombination has separate utility such as in a valve device in which plural opposing valve heads operate to provide the bi-directional control yet the seal element does not move.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Newly submitted claims 15-18 are directed to an invention that is independent or distinct from the invention originally claimed for the above reasons.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 15-18 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

An action on the merits of claims 1-14 is as follows.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. §102 (b) as being anticipated by Inada et al.

In claim 1, the recitation “for use in exhausting over-pressure in an inflatable device as well as topping off or inflating the inflatable device” is a statement of intended use bearing no patentable weight.

The patent to Inada et al. in figure 2, discloses “a pressure relief and topping valve... comprising: a valve body (18) having a fluid passage therein with an internal shoulder (19); a first poppet (generally at 24) having a seal (20) seated therein and biased against the shoulder (19) by a first spring (33) that operates independently, the first poppet (24) and seal (20) having an aperture (the “hole” in wall 27) therein (receiving rod 29); a second poppet (30, 31) biased into the aperture by a second spring (34) that operates independently from the first spring” as recited.

Regarding claim 2, in Inada et al., “the second poppet (30, 31) is biased against the seal (20 at seal surface 23) in the aperture” as recited.

Regarding claim 3, in Inada et al., “the seal (20) includes a first face (the left side surface facing wall 27) that seats within a recessed seat (defined by the extension at squeezing portion 28) within the first poppet (24)” as recited.

Regarding claim 4, in Inada et al., "the seal (20) includes a seating surface (at 22) for sealable seating against the internal shoulder (19) when the first poppet (24) is biased against the shoulder (19)" as recited.

Regarding claim 5, in Inada et al., "the seal (20) includes a sealing shoulder (at 23) for sealable seating against the second poppet (30 , 31) when the second poppet (30, 31) is biased into the aperture by the second spring (34)" as recited.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inada et al. in view of Bowen.

The patent to Inada et al. discloses, in addition to the recitations of claim 1 noted above, "a recessed seat with a poppet aperture (through which rod 29 passes) extending therein extending through the first poppet".

Thus Inada et al. discloses all the claimed features with the exception of having "the first poppet further including a plurality of outward stops extending from the poppet and defining air flow passages therebetween.

The patent to Bowen discloses that it is known in the art to employ, on a bi-directional check valve device, a "first poppet (A, C) further including a plurality of outward stops (B) extending from the poppet and defining air flow passages therebetween" for the purpose of strictly guiding the poppet valve A in reciprocation within the passage in which the valve A reciprocates while permitting fluid flow across the valve A.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Inada et al. a plurality of "stops" radially extending from the periphery of valve 30, including fluid flow passages between the stops, for the purpose of strictly guiding the poppet valve 30 in reciprocation within the passage 11 in which the valve 30 reciprocates while permitting fluid flow across the valve 30 as recognized by Bowen.

Regarding claim 7, in Inada et al., "the first spring (33) is positioned between the first poppet (24) and a first spring retainer (shoulder/surface 17) for biasing the first poppet (24) against the shoulder (19)" as recited.

Regarding claim 8, in Inada et al., "the second poppet (30, 31) includes a stem (29) extending to a head (31) with a neck therebetween, where the poppet (30, 31) seats within the poppet (24) aperture (receiving rod 19) and selectively against the seal (at 23)" as recited.

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inada et al. in view of Bowen as applied to claims 6-8 above, further in view of Hollowell.

The patent to Inada et al., as modified by Bowen, discloses all the claimed features with the exception of having "the second spring... positioned between the first poppet and a second spring retainer for biasing the second poppet against the seal".

The patent to Hollowell discloses that it is known in the art to employ a "second spring" 23, biasing an overpressure valve 20 (relative to the tire) closed, in which the spring 23 "is positioned between the first poppet (at cup 17) and a second (independent) spring retainer (washer 24 and nuts 25) for biasing the second poppet (20) against the seal (at 19) for the purpose of, as compared to the construction of Inada et al., reducing the overall length of the bi-directional check valve device thus reducing the space occupied by the device in its assembled position.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Inada et al., as modified by Bowen, a second spring positioned between the first poppet and a second, independent spring retainer for biasing the second poppet against the seal for the purpose of, as compared to the construction of Inada et al., reducing the overall length of the bi-directional check valve device thus reducing the space occupied by the device in its assembled position as recognized by Hollowell.

Regarding claim 10, the recitation "for use in exhausting over-pressure in an inflatable device as well as topping off or inflating the inflatable device" is considered a statement of intended use bearing no patentable weight.

The combination of Inada et al., Bowen and Hollowell discloses "a pressure relief and topping valve... comprising, the valve comprising: a valve body (18, Inada et al.) having a fluid passage therein with an internal shoulder (19, Inada et al.); a first poppet (24, Inada et al.) having a recessed seat (within wall 27, Inada et al.) with a poppet aperture (receiving rod 19, Inada et al.) extending therein extending through the first poppet, the first poppet (30, 31, Inada et al.) further including a plurality of outward stops (as taught at B, Bowen) extending from the poppet; a first spring retainer (17, Inada et al.) for holding the first poppet (24, Inada et al.) within the fluid passage; a first

spring (33, Inada et al.) positioned between the first poppet (24, Inada et al.) and the first spring retainer (17, Inada et al.) for biasing the first poppet (24, Inada et al.) against the shoulder (19, Inada et al.), the first spring being independent; a seal (20, Inada et al.) having a seal aperture (so as to receive rod 19 therethrough, Inada et al.) therein aligned with the poppet aperture when the seal (20, Inada et al.) is seated in the recessed seat (at wall 27, Inada et al.) and selectively against the internal shoulder (19, Inada et al.); a second poppet (30, 31, Inada et al.) having a stem (19, Inada et al.) extending to a head (31, Inada et al.) with a neck therebetween, where the poppet (30, 31, Inada et al.) seats within the poppet aperture and selectively against the seal (20, Inada et al.); a second spring retainer (35, Inada et al.) for holding the second poppet (30, 31, Inada et al.) within the fluid passage; and a second spring (34, Inada et al.) positioned between the first poppet and the second spring retainer for biasing the second poppet against the seal (as taught by Hollowell at spring 23 within the outer spring 26 and between the "first poppet" 17 and a separate independent spring retainer at washer 24 and nuts 25), and the second spring operating independently from the first spring (as in Inada et al.)" as recited.

Regarding claim 11, in Inada et al., "the seal (20) includes a first face (the left side facing surface facing wall 27) that seats within a recessed seat (defined by squeezing portion 28) within the first poppet (30, 31)" as recited.

Regarding claim 12, in Inada et al., "the seal (20) includes a seating surface (at 22) for sealing against the internal shoulder (19) when the first poppet (24) is biased against the shoulder (19)" as recited.

Regarding claim 13, in Inada et al., "the seal (20) includes a sealing shoulder (at surface 23) for sealable seating against the second poppet (30, 31) when the second poppet (30, 31) is biased into the aperture by the second spring (34)" as recited.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inada et al. in view of Jones.

The patent to Inada et al. discloses all the claimed features with the exception of having utility and associated method steps for "topping an inflatable device as well as allowing excess pressure to relieve from the inflatable device".

The patent to Jones discloses that it is known in the art to employ a bi-directional valve element in general useful for topping off valve as well relieving excess pressure of an inflatable object such as a tire, and associated, inherent method steps performing these functions.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ the device of Inada et al. as a pressure relief and topping valve for the purpose of permitting exhaustion of over-pressure in an inflatable object as well as inflation of the inflatable object as recognized by Jones.

Concerning applicants remarks as they may apply to the above, in Inada et al., the second poppet valve 30, 31, and its associated spring element 34 are carried by the first poppet valve 24. Movement of the second valve head at 31, against the bias of spring 34, occurs "independently" of the biasing spring 33 of the first poppet valve 24.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Rivell
Primary Examiner
Art Unit 3753

j.r.